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W. R. GRACE & CO.-CONN
ATTENTION: PATENT DEPARTMENT
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CAMBRIDGE, MA 02140

EXAMINER

GULAKOWSKI, RANDY P

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARYSUSAN COUTURIER

Appeal 2009-012093
Application 10/547,443
Technology Center 1700

Before EDWARD C. KIMLIN, ADRIENE LEPIANE HANLON, and
TERRY J. OWENS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

STATEMENT OF THE CASE

The Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 22 to 34, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

The Invention

The Appellant claims a food or beverage closure sealant liner molded from a specified composition. Claim 22 is illustrative:

22. A closure for a food or beverage container, wherein the closure includes a sealant liner molded from a composition comprising

(A) a polymer component, which is essentially free of erucamide and other unsaturated amide, said polymer component comprising a thermoplastic polymer selected from the group consisting of polyethylene, ethylene copolymer with other lower alkenes, polypropylene, thermoplastic rubber, poly(ethylene propylene) copolymer, acid modified ethylene propylene copolymer, styrene butadiene rubber, carboxylated styrene butadiene block co-polymer, polyisoprene, styrene isoprene styrene block copolymer, styrene butadiene styrene block copolymer, styrene ethylene butylene styrene block copolymer, polystyrene block polyethylene/propylene copolymer, ethylene vinyl acetate copolymer or terpolymer, ethylene acrylate copolymer or terpolymer, ethylene vinyl alcohol copolymer, butyl rubber, poly(vinyl chloride) polymer, and mixtures thereof;

(B) a lubricant comprising an organopolysiloxane, said organopolysiloxane having an average molecular weight not less than 40,000, said organosiloxane being present in an amount not less than 0.01 parts and not greater than 10 parts based on 100 parts of said polymer component (A), and said organopolysiloxane having a viscosity of at least 50,000 cst; and

(C) a slip aid comprising a saturated amide and an oxidized polyethylene, said slip aid being present in an amount not less than 0.01 parts and not greater than 8 parts based on 100 parts of said polymer component (A), said amide having an iodine value no greater than 5 in accordance with ASTM D2075-92.

The References

References relied upon by the Examiner

White	5,955,163	Sep. 21, 1999
Knight	0 129 309 B1	Aug. 3, 1988
Akao	0 569 950 A1	Nov. 18, 1993

George A. Burdock, "Polyethylene, Oxidized", III *Encyclopedia of Food and Color Additives* 2246-47 CRC Press, 1999).

References relied upon by the Appellant

F.H. Winslow, "New Protectants for Polyethylene", 36 *Bell Labs. Record* 319-22 (Sep. 1958).

"Antioxidants, Polymers", 3 *Kirk-Othmer Encyclopedia of Chem. Tech.* 102-34 (John Wiley & Sons, 2002) (hereafter Kirk-Othmer).

The Rejections

The claims stand rejected as follows: claims 22-28 and 33 under 35 U.S.C. § 102(b) over Knight as evidenced by Burdock; claim 29 under 35 U.S.C. § 103 over Knight as evidenced by Burdock, in view of White; and claims 30-32 and 34 under 35 U.S.C. § 103 over Knight as evidenced by Burdock, in view of Akao.

OPINION

We reverse the rejections.

Issue

Has the Appellant indicated reversible error in the Examiner's determination that Knight's polyethylene wax is oxidized?

Findings of Fact

Knight discloses a container seal gasket made from a composition comprising generally below 30% polyethylene wax (col. 2, ll. 5-11, 16; col. 5, ll. 1-4).

Burdock discloses that “[o]xidized polyethylene is the basic resin produced by the mild air oxidation of polyethylene” (p. 2246).

Analysis

The Examiner argues that “[a]s evidenced by Burdock, the polyethylene wax of Knight inherently undergoes oxidation in the presence of air to produce oxidized polyethylene wax” (Ans. 9).

The Appellant argues, in reliance upon Kirk-Othmer, that “it is well-known that commercially available polyethylenes typically include thermal stabilizers or antioxidants” (Br. 11). Kirk-Othmer states that “[l]ow concentrations of stabilizers (<0.01%) are often added to polyethylene and polypropylene after synthesis and prior to isolation to retard oxidation of the polymer[s] before they are exposed to sources of oxygen or air” (p. 118). The Appellant argues that Winslow confirms the present day common usage of antioxidants in polyethylene resins (Br. 11). Winslow discloses that polyethylene “has one serious weakness – it readily oxidizes” (p. 319, left col., third paragraph) and that Bell Laboratories has developed “a whole new series of antioxidant compounds which, when added to polyethylene, will counteract serious oxidation for more than twenty years” (p. 319, right col., first paragraph). The Appellant argues that “Knight does not suggest that the polyethylene wax component can or should be replaced with oxidized polyethylene” (Br. 13).

The Examiner responds that “[n]owhere in the disclosure does Knight teach that the polyethylene wax of the invention is a commercially acquired

polyethylene wax having thermal stabilizers or antioxidants incorporated therein, or that the polyethylene wax contains thermal stabilizers or antioxidants” (Ans. 12).

The Examiner has the initial burden of establishing a prima facie case of anticipation by pointing out where all of the claim limitations appear, either expressly or inherently, in a single reference. *See In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1255-56 (Fed. Cir. 1989); *In re King*, 801 F.2d 1324, 1327 (Fed. Cir. 1986). It is undisputed that Knight does not disclose that the polyethylene wax is oxidized. The Examiner is relying upon the oxidation as being an inherent characteristic of Knight’s polyethylene wax (Ans. 9). An inherent characteristic must be inevitable, and not merely a possibility or probability. *See In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981). The Examiner has not established that Knight’s polyethylene wax inevitably contains no antioxidant. Nor has the Examiner established that if Knight’s polyethylene wax contains an antioxidant there inevitably is at least some degree of oxidation regardless of the effect of the antioxidant. Thus, the Examiner has not established that Knight’s closure anticipates the Appellant’s claimed closure.

As for the obviousness rejections the Examiner has provided no argument that it would have been prima facie obvious to one of ordinary skill in the art to use, as Knight’s polyethylene wax, an oxidized polyethylene wax.

Conclusion of Law

The Appellant has indicated reversible error in the Examiner’s determination that Knight’s polyethylene wax is oxidized.

DECISION/ORDER

The rejections of claims 22-28 and 33 under 35 U.S.C. § 102(b) over Knight as evidenced by Burdock, claim 29 under 35 U.S.C. § 103 over Knight as evidenced by Burdock, in view of White, and claims 30-32 and 34 under 35 U.S.C. § 103 over Knight as evidenced by Burdock, in view of Akao are reversed.

It is ordered that the Examiner's decision is reversed.

REVERSED

kmm

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